REMARKS/ARGUMENTS

Reconsideration of the rejections set forth in the Final Office Action dated March 16, 2005 is respectfully requested. Claims 1-38 have been rejected. Claims 7, 17, 32, and 34-36 have been cancelled. As such, claims 1-6, 8-16, 18-31, 33, 37, and 38 are currently pending.

Claim 1 has been amended to include the limitation originally included in now cancelled claim 7. Claims 8 and 9 have been amended to have proper antecedent basis in view of the cancellation of claim 7. Claim 12 has been amended to include the limitation of now cancelled claim 17. Claim 18 has been amended to provide proper antecedent basis in view of the cancellation of claim 17. Claim 19 has been amended to correct a typographical error, *i.e.*, "identifies" has been amended to read as "identifiers." Claim 28 has been amended to include the limitation of now cancelled claim 28. Claim 33 has been amended to incorporate the limitation of claim 34, which has been cancelled. Claims 35 and 36 have been amended in a sincere effort to expedite prosecution.

Previous Attempt to File Amendment

On May 4, 2005, the Undersigned attempted to file a response to the Final Office Action dated March 16, 2005 with the USPTO via facsimile. However, upon a closer review of the Auto-Reply Facsimile Transmission received that same day (which is included with this submission), it appears that the USPTO only received two pages of the facsimile. In perhaps an overabundance of caution, the Applicant is resubmitting a response to the Final Office Action dated March 16, 2005. It is noted that none of the amendments or arguments made has been changed, so both responses contain the same amendments and arguments. If the original response filed May 4, 2005 was properly received, then please disregard this effectively duplicate response.

Rejections under 35 U.S.C § 102 and 35 U.S.C § 103

Claims 1-3, 5, 7-14, 17, 19, 21-24, 28-30, 33, and 35-38 have been rejected under 35 U.S.C § 102(e) as being anticipated by Allen, U.S. Patent Publication No. 2001/0032271 (Azuma). Claims 4, 6, 16, 18, 20, 25-27, 32, and 34 have been rejected under 35 U.S.C § 102(e) as being unpatentable over Allen as applied to claims 1, 5, 12, 17, 19, 23, 24, 28, and 33 and further in view of Fahim et al., U.S. Patent No. 5,459,716 (Fahim).

1. Independent Claims 1, 12, and their dependents

Independent claim 1 requires that a device includes a route generator and a list mechanism. The route generator is arranged to generate an alternate circuit path between a first node and a second node using a list mechanism. The alternate circuit path is generated so as not to include the first element identified by the list mechanism, and is not affected by a failure of the first element. As amended, claim 1 also requires that the route generator is arranged to accept an input that is arranged to specify one of a nodal diverse constraint and a link diverse constraint for the alternate circuit path. It is noted that this new limitation was previously presented in claim 7 as originally filed.

When a network administrator can specify either a nodal diverse constraint or a link diverse constraint, an alternate path may be routed to include either no nodes that are included in a corresponding primary path or no links that are included in the primary path, respectively. As such, the routing of an alternate path may occur with a relatively high level of efficiency (Specification, on page 11 at lines 1-4).

The Examiner has argued, on page 4 of the Final Office Action dated March 16, 2005, that "Allen discloses a system, as claimed, wherein the route generator is arranged to accept an input to specify a nodal diverse constraint or a link diverse constraint for the alternate circuit path (see paragraphs [0037-0038])." The Applicants respectfully submit that the Examiner has mischaracterized Allen, and that Allen does not teach that a route generator is arranged to accept

an input to specify either a nodal diverse constraint or a link diverse constraint. At paragraph [0037], Allen teaches as follows:

> "....In order to reduce likelihood that the secondary path shares resources and therefore a common point of failure with the initial path, originating node 102a may establish an explicit path having different routing nodes using MPLS ER-LSP. Alternatively, again, any other suitable path establishment mechanism may be used to establish the secondary path. So, for example, hop-to-hop LSR path establishment could be used."

At paragraph [0038], Allen states:

> "... Each node receiving this second path establishment message, along the subsequent path, may use local knowledge of resources used by hops to and from the node to assess overlap in these resources and the primary path to make routing decisions in manners exemplary of the present invention.... a node 102 may either choose different resource to complete the path or dispatch a message indication that a desired path is inappropriate as it lacks diversity from the initial path."

While Allen appears to teach of establishing paths having different routing nodes and of using a path establishment request message, there is no teaching or even remote suggestion in Allen of an input accepted by a route generator that specifies either a nodal diverse constraint or a link diverse constraint. A path establishment request message appears to be just that, a message which requests that a second path be established. Allen does not disclose that the path establishment request message specifies either a nodal diverse constraint or a link diverse constraint. Further, while Allen does mention that an explicit path having different routing nodes than an initial path may be established, there is no disclosure of an actual constraint which may be used to specify nodal diversity of link diversity. As such, amended claim 1 is believed to allowable over Allen for at least these reasons.

Claims 2-6 and 8-11 each depend either directly or indirectly from amended claim 1, and are therefore each believed to be allowable over the cited art for at least the reasons set forth with

respect to claim 1. Each of these claims recites additional limitations which, when considered in light of claim 1, are believed to further distinguish the claimed invention over the cited art.

Independent claim 12, as amended to include limitation of claim 17 as originally filed, recites similar limitations as recited in claim 1. As such, claim 12 and its dependents are each believed to be allowable over the cited art for at least the reasons set forth above with respect to claim 1.

2. Independent Claims 19, 24, and their dependents

Independent claim 19 recites an element for use in an optical network. The element includes a route generator arranged to compute a first circuit path as well as a list. The list includes a plurality of identifiers arranged to identify links. The route generator computes a second circuit path that does not include selected links identified by the plurality of identifiers included in the list.

The Examiner has argued that Allen teaches the limitations of claim 19. It is respectfully submitted that Allen does not teach of a list which includes identifiers for a plurality of links that are not to be included in a second circuit path. While Allen does mention an indicator at paragraph 0038, the indicator mentioned by Allen is an indicator that a path establishment message is establishing a protection path. The indicator of Allen is not an identifier that identifies a link and is included in a list. Accordingly, claim 19 is believed to be allowable over Allen for at least this reason.

Claims 20-23 each depend form independent claim 19, and are believed to be allowable over the cited art for at least the reasons set forth with respect to claim 19. Each of these claims recites additional limitations which, when considered in light of claim 19, are believed to further distinguish the claimed invention over the art of record. By way of example, claim 22 recites that the route generator identifies a first link, creates a first identifier that identifies the first link, and places the first identifier in the list. In the passage of Allen cited by the Examiner as

teaching of this limitation, Allen teaches that a path establishment message contains an indicator that a protection path is being established (Allen, paragraph [0039]). However, there is no teaching of an indicator or an identifier that identifies a link being placed in a list. The indicator taught by Allen does not identify a link, and is not placed in a list. As such, claim 22 is further believed to be allowable over Allen for at least these additional reasons as well.

Independent claim 24 recites similar limitations as recited in claim 19. As such, claim 24 and its dependents are each believed to be allowable over the cited art for at least the reasons set forth above with respect to claim 19.

3. Independent Claims 28, 33, and their dependents

Independent claim 28, as amended to include the limitation of now cancelled claim 32, recites a method for computing an alternate circuit path that corresponds to a primary circuit path. The method includes identifying a protected link using the routing algorithm as being inaccessible to the alternate circuit path. The alternate circuit path is created using the routing algorithm such that a first element and the protected link are not included in the alternate circuit path.

The Examiner has acknowledged that Allen fails to teach of protected links. On page 7 of the Final Office Action dated March 16, 2005, the Examiner has argued that Fahim teaches of protected links, and of not using the protected links in an alternate path. The Examiner has specifically equated the spare edges taught by Fahim to protected links. It is respectfully submitted that not only are spare edges not equivalent to protected links, but Fahim does not teach of or suggest the use of protected links at all. At lines 60-65 of column 5, Fahim discloses

> "...and spare edges. Impacted edges are derived from working sections of trunks that were carrying live traffic before the outage; **spare edges are derived from spare facilities that are specifically used to reroute circuits** in the event of an outage." [emphasis added]

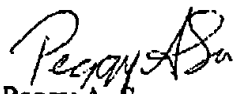
There is no teaching or suggestion in Fahim that spare edges are protected links. A protected link, as known in the art, is a link which has two fibers or cables over which signals may be transmitted substantially simultaneously (Specification, on page 2 at lines 17-19). "Spare facilities" appear to be any links or edges which remain after circuits are routed. Since Fahim does not appear to teach of protected links, the Applicants submit that there is no suggestion that the spare edges are protected links. There is also no teaching or suggestion that "action edges," as mentioned in Fahim at lines 32-33 of column 11, do not include protected links. Therefore, a combination of Allen and Fahim does not suggest identifying a protected link as being inaccessible to an alternate circuit path, or of such a protected link not being included in an alternate circuit path. Thus, claim 28 is believed to be allowable over the cited art for at least these reasons.

Independent claim 33 recites similar limitations as recited in claim 28. As such, claim 33 and its dependents are each believed to be allowable over the cited art for at least the reasons set forth above with respect to claim 28.

Conclusion

For at least the foregoing reasons, the Applicants believe all the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 399-5608.

Respectfully submitted,



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